

1 **Amendments to the Claims:**

2 This listing of claims will replace all prior versions, and listings, of claims in the
3 application:

4 **Listing of Claims:**

5 1. (Currently Amended) An electronic golf swing analyzer system, comprising:

6 a. an analyzer including an infrared sensor base and an ultrasonic (U/S) sensor
7 base, said infrared sensor base includes a hitting area with a center axis with two arrays of
8 infrared sensors located therein used to detect the presence of a golf club head moving
9 through said hitting area, each said array of infrared sensors being located on opposite sides
10 and equal distance from said center axis, said ultrasonic sensor base being perpendicularly
11 aligned and extending upward above said infrared sensor base, said ultrasonic sensor base
12 including at least two ultrasonic sensors aimed at said hitting area, said ultrasonic sensors
13 being located on opposite sides and equal distance from said center axis, said analyzing also
14 including means for activating said array of infrared sensors and said ultrasonic sensors being
15 controlled so that when a golf club head moves across said hitting area on said infrared
16 sensor base and parallel to said ultrasonic base, said array of infrared sensors located in front
17 of said center axis being activated when said golf club head moves through said hitting area
18 and which then sequentially activates said ultrasonic sensor on the same side of said center
19 axis and said array of infrared sensors and said ultrasonic sensor located on the opposite side
20 of said center axis; activates on the same side of said center axis as said array of infrared
21 sensors located on the same side of said center axis when a golf club across said infrared
22 sensor base;

23 b. a computer having working memory;

1 c. means for connecting said analyzer to said computer; and,

2 d. a golf swing analyzing software application loaded into said working memory

3 of said computer, said software application ~~capable of using~~ uses the data from ~~said~~

4 ~~ultrasonic sensors and said~~ infrared sensors located before said center line axis when said

5 golf club head moves through said hitting area to determine the club head's speed and face

6 angle, said software application also uses the data from said two ultrasonic sensors as said

7 travels through said hitting area to determine the swing path angle, when a golf club swing is

8 ~~made over~~ ~~said hitting area to determine a golf ball's distance, direction, and flight path after~~

9 ~~impact.~~

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11 2. (Cancelled)

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13 3. (Currently Amended) The electronic golf swing analyzer system, as recited in Claim 1,

14 wherein said ~~array arrays~~ of infrared sensors are symmetrical and include includes one outer

15 infrared sensor and two inner infrared sensors.

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17 4. (Cancelled)

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19 5. (Cancelled)

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21 6. (Currently Amended) The electronic golf swing analyzer system, as recited in Claim 3,

22 wherein each said infrared sensor includes include an a pulsing infrared emitter and an

23 infrared photodiode detector.

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2 7. (Original) The electronic golf swing analyzer system, as recited in Claim 6, wherein said

3 infrared emitter and said infrared photodiode detector are located in a bushing fitted to said

4 infrared support base.

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6 8. (Currently Amended) The electronic golf swing analyzer system, as recited in Claim 7,

7 further including an infrared filter located over said photodiode detector ~~photo-detector~~.

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9 9. (Original) The electronic golf swing analyzer system, as recited in Claim 8, further

10 including a lens mounted over said photodiode detector to direct infrared radiation towards

11 said photo-detector.

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13 10. (Original) The electronic golf swing analyzer system, as recited in Claim 1, further

14 including a rubber mat attached over said infrared sensor base.

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16 11. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said

17 means to connect said computer to said analyzer is a serial communications cable.

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19 12. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said

20 infrared support base and said ultrasonic support base are pivotally connected together along

21 one edge thereby enabling said analyzer to be selectively opened and closed.

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23 13. (Cancelled)

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2 14. (Original) The electronic golf swing analyzer system, as recited in Claim 1, wherein said
3 ultrasonic sensors are automatically software activated at the proper time to produce
4 ultrasonic signals when a golf club moves over said arrays of infrared sensors located on the
5 same side of said center axis of said infrared support base, said ultrasonic sensors being
6 aimed to transmit an ultrasonic signal and receive a reflected ultrasonic signal from a golf
7 club moving over said array of infrared sensors located on the same side of said center axis.
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9 15. (Currently Amended) An electronic golf swing analyzer system, comprising:

10 a. an analyzer including an infrared sensor base and an ultrasonic sensor base,
11 said infrared sensor base includes a hitting area with a center axis with two arrays of infrared
12 sensors located therein used to detect the presence of a club head moving through said hitting
13 area, each said infrared sensor in each said array of pulsing infrared sensors includes an
14 infrared emitter and an infrared photodiode detector ~~and being located inside a bushing~~
15 mounted on opposite sides and equal distance from said center axis, said ultrasonic sensor
16 base being perpendicularly aligned and extending upward above said infrared sensor base,
17 said ultrasonic sensor base including at least two ultrasonic sensors aimed at said hitting area,
18 said ultrasonic sensors being located on opposite sides and equal distance from said center
19 axis, 3 said ultrasonic sensors being ~~software activated at the proper time~~ to produce
20 ultrasonic signals when a golf club moves over said ~~arrays array~~ of infrared sensors located
21 on the same side of said center axis, said ultrasonic sensors being aimed to transmit an
22 ultrasonic signal and receive a reflected ultrasonic signal from a golf club moving over said
23 array of infrared sensors located on the same side of said center axis;

1 b. a computer having working memory and a visual display means;
2 c. means for connecting said analyzer to said computer; and,
3 d. a golf swing analyzing software application loaded into said working memory
4 of said computer, said software application ~~eapable of using~~ uses the data from said
5 ultrasonic sensors to calculate the swing path angle and uses the data from ~~and~~ said arrays of
6 infrared sensors to determine the club head velocity and face angle at impact when a golf club
7 is swing ~~swung over said hitting area and impacts a golf ball located~~ is made on said center
8 axis. ~~over said hitting area to determine a golf ball's distance, direction, and flight path after~~
9 impact and displaying said information on said display means.

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11 16. (Original) The electronic golf swing analyzer system, as recited in Claim 15, wherein
12 said infrared support base and said ultrasonic support base are pivotally connected together
13 along one edge thereby enabling said analyzer to be selectively opened and closed.

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15 17. (Original) The electronic golf swing analyzer system, as recited in Claim 15, further
16 including a stance base connected to said infrared support base upon which a player stands to
17 swing a golf club.

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19 18. (Original) The electronic golf swing analyzer system, as recited in Claim 17, wherein
20 said stance base includes a grid surface.

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22 19. (Original) The electronic golf swing analyzer system as recited in Claim 18, wherein said
23 stance base includes two hinged boxes.

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2 20. (Original) The electronic golf swing analyzer system, as recited in Claim 15, wherein
3 said software program allows a user to select a specific club, ball, environmental conditions,
4 and the player's profile (right handed or left handed golfer).

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